



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Area
OKLAHOMA/1053/EG - LOADER
Machine Id
45.39L [OKLAHOMA^1053^EG - LOADER]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0738476	WC0741165	WC0746205
Sample Date		Client Info		19 Dec 2022	03 Nov 2022	10 Oct 2022
Machine Age	hrs	Client Info		11823	11559	11241
Oil Age	hrs	Client Info		237	318	233
Filter Age	hrs	Client Info		237	318	233
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				ABNORMAL	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	22	6	24
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	8	1	8
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	2	4	4
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

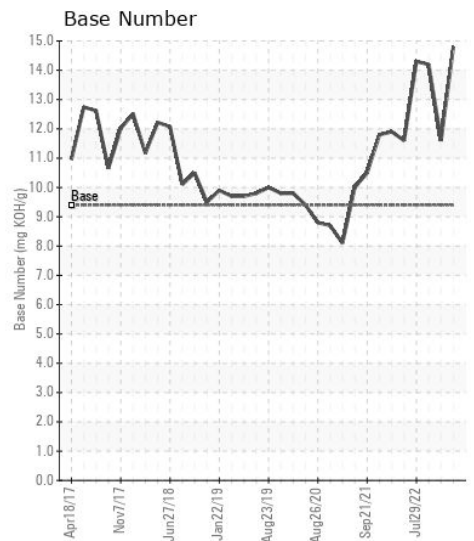
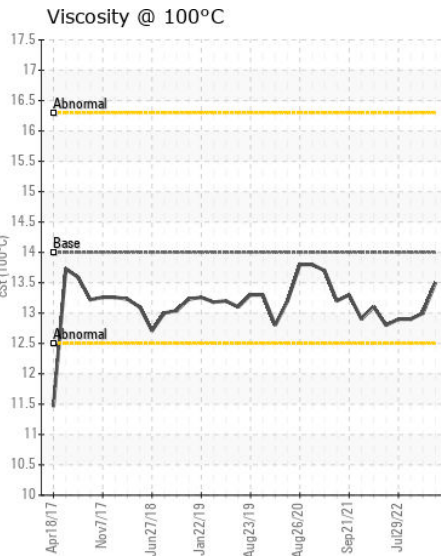
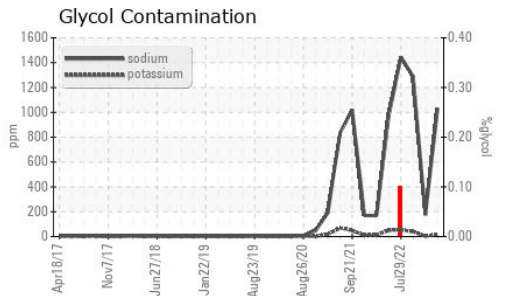
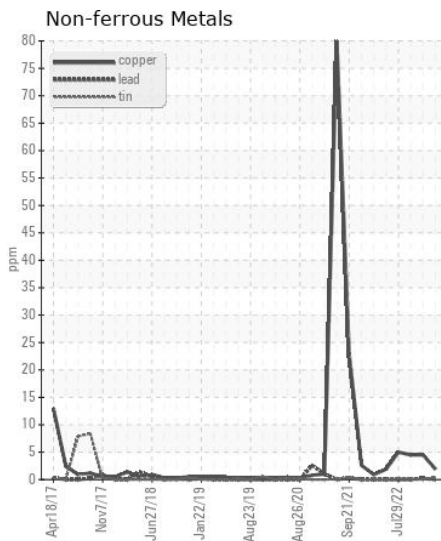
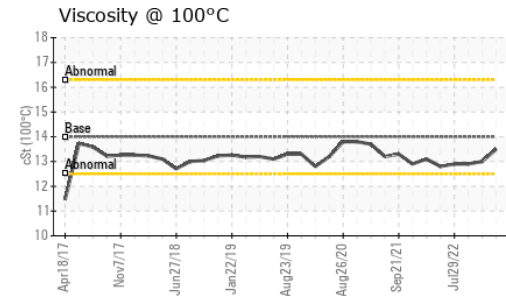
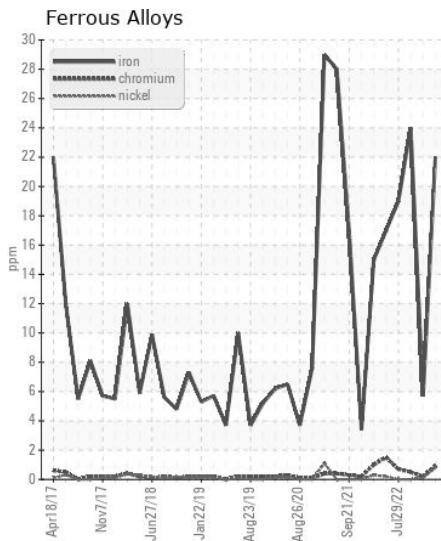
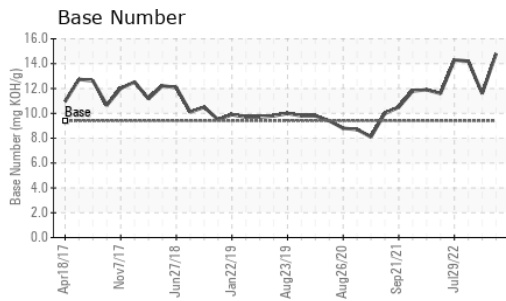
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>25	6	4	6
Potassium	ppm	ASTM D5185m	>20	19	3	▲ 39
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.6	0.2	1.2
Nitration	Abs/cm	*ASTM D7624	>20	11	6.4	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.5	23.8	26.0
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		▲ 1031	▲ 175	▲ 1288
Boron	ppm	ASTM D5185m	0	38	60	27
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	204	63	238
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	0	499	493	441
Calcium	ppm	ASTM D5185m		1623	1617	1591
Phosphorus	ppm	ASTM D5185m		752	712	710
Zinc	ppm	ASTM D5185m		910	885	862
Sulfur	ppm	ASTM D5185m		2853	2715	2887
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.6	21	22.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	14.8	11.6	14.2
Visc @ 100°C	cSt	ASTM D445	14	13.5	13.0	12.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0738476 **Received** : 29 Dec 2022
Lab Number : 05727283 **Diagnosed** : 30 Dec 2022
Unique Number : 10271864 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: Glycol, TBN)

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Certificate L2367
 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)